

IN THE CLAIMS:

Please cancel claims 4 - 9 and 11 - 13 without prejudice.

1                   1.       (Original): An electronic device comprising a semiconductor  
2 device provided with pads and a substrate provided with pads on which substrate said  
3 semiconductor device is mounted, the pads of the semiconductor device being bonded to  
4 the pads of the substrate through junctions each including Cu balls and Cu-Sn compounds  
5 containing  $\text{Cu}_6\text{Sn}_5$ , said Cu balls being bonded to each other by said Cu-Sn compounds.

1                   2.       (Original): An electronic device according to claim 1, wherein  
2 each of said junctions contains at least one kind selected from the group consisting of In,  
3 Zn and Bi.

1                   3.       (Original): An electronic device according to claim 2, wherein  
2 each of said junctions has plastic balls.

1                   4.       (Canceled): ~~An electronic device comprising a semiconductor device~~  
2 ~~provided with pads and a substrate provided with pads on which substrate said semiconductor device is~~  
3 ~~mounted, said pads of said semiconductor device being bonded to said pads of said substrate through solder~~  
4 ~~portions each having Cu balls each surface of which is plated with one selected from the group consisting~~  
5 ~~of Sn and a Sn base alloy.~~

1                   5.       (Canceled): ~~An electronic device comprising a semiconductor device~~  
2 ~~provided with pads and a substrate provided with pads on which substrate said semiconductor device is~~  
3 ~~mounted, said pads of said semiconductor device being bonded to said pads of said substrate through solder~~  
4 ~~portions each having Cu balls and solder balls, a weight ratio of said solder balls to said Cu balls being in a~~  
5 ~~range of 0.6 to 1.4.~~

1                   6.       (Canceled): ~~An electronic device according to claim 5, wherein said solder~~  
2 ~~balls are one kind selected from the group consisting of eutectic Sn-Cu base solder balls, eutectic Sn-Ag-~~  
3 ~~base solder balls and eutectic Sn-Ag-Cu base solder balls.~~

A2  
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1                   7.       (Canceled): ~~An electronic device according to claim 4 or 5, wherein at least~~  
2 ~~one kind selected from the group consisting of In, Zn and Bi is added to said solder portions.~~

1                   8.       (Canceled): ~~An electronic device according to claim 4 or 5, wherein said~~  
2 ~~solder has plastic balls.~~

1                   9.       (Canceled): ~~An electronic device according to claim 4 or 5, wherein said~~  
2 ~~solder portions include particles of at least one kind selected from the group consisting of invar, silica,~~  
3 ~~alumina, AlN and SiC.~~

1                   10.      (Original): An electronic device comprising a semiconductor  
2 device provided with pads, a first substrate provided with pads on which substrate said  
3 semiconductor device is mounted, and a second substrate provided with pads on which  
4 second substrate said first substrate is mounted,  
5                   said pads of the semiconductor device being bonded to said pads of the  
6 first substrate through junctions each including Cu balls and a Cu<sub>6</sub>Sn<sub>5</sub> compound, said Cu  
7 balls being bonded to each other by said Cu<sub>6</sub>Sn<sub>5</sub> compound,  
8                   said pads of the first substrate being bonded to said pads of the second  
9 substrate by one selected from the group consisting of a Sn-Ag-base solder, a Sn-Ag-Cu-  
10 base solder, a Sn-Cu-base solder and a Sn Zn base solder.

1                   11.      (Canceled): ~~An electronic device comprising a semiconductor device~~  
2 ~~provided with pads, a first substrate provided with pads on which substrate said semiconductor device is~~  
3 ~~mounted, and a second substrate provided with pads on which second substrate said first substrate is~~  
4 ~~mounted,~~  
5                   ~~said pads of the semiconductor device being bonded to said pads of the first substrate~~  
6 ~~through solder portions each including Cu balls each surface of which is plated with one selected from the~~  
7 ~~group consisting of Sn and a Sn alloy,~~  
8                   ~~said pads of the first substrate being bonded to said pads of the second substrate by one~~  
9 ~~selected from the group consisting of a Sn-Ag-base solder, a Sn-Ag-Cu-base solder, a Sn-Cu-base solder~~  
10 ~~and a Sn-Zn-base solder.~~

A2  
Cont'd

1                   12.   (Canceled): ~~An electronic device comprising a semiconductor device~~  
2 ~~provided with pads, a first substrate provided with pads on which substrate said semiconductor device is~~  
3 ~~mounted, and a second substrate provided with pads on which second substrate said first substrate is~~  
4 ~~mounted,~~  
5                   said pads of the semiconductor device being bonded to said pads of the first substrate  
6 through solder portions each including Cu balls and solder balls, a weight ratio of said solder balls to said  
7 Cu balls being in a range of 0.6 to 1.4,  
8                   said pads of the first substrate being bonded to said pads of the second substrate by one  
9 selected from the group consisting of a Sn-Ag base solder, a Sn-Ag-Cu base solder, a Sn-Cu base solder  
10 and a Sn-Zn base solder.

92 end  
1                   13.   (Canceled): An electronic device according to any one of claims 10 to 12, said  
2 pads of the first substrate being bonded to said pads of the second substrate by a Sn (2.0 to 3.5) Ag (0.5 to  
3 1.0) Cu solder.

1                   14.   (Original): An electronic device comprising a semiconductor chip  
2 provided on one face thereof with connection terminals, and a substrate provided with  
3 connection terminals on which substrate said semiconductor chip is mounted,  
4                   said connection terminals of said substrate and said connection terminals  
5 of said semiconductor chip are bonded to each other by wire bonding,  
6                   another face of said semiconductor chip and said substrate being bonded  
7 to each other through bonding portions each containing Cu balls and Cu<sub>6</sub>Sn<sub>5</sub> compounds,  
8 said Cu balls being bonded to each other by said Cu<sub>6</sub>Sn<sub>5</sub> compounds.

1                   15.   (Original): An electronic device according to claim 14, said  
2 substrate comprising external connection terminals on a rear face regarding a face  
3 provided with said connection terminals, said external connection terminals being formed  
4 of at least one selected from the group consisting of a Sn-Ag-based solder, a Sn-Ag-Cu-  
5 based solder, a Sn-Cu base solder and a Sn-Zn based solder

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